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Nature's Sanitarium,

RENO, NEVADA

—AND—

Its Surroundings in the Sierras.

The Wonderland

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VALUABLE INFORMATION CONCERNING

NATURE'S SANITARIUM,

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RENO, NEVADA,

And its surroundings in the Sierras—Lakes Tahoe, Donner, Webber, Independence and Pyramid.

Journal Print, Reno, Nevada.

PUBLISHED BY THE WESTERN

Nevada Improvement Association

REV. T. MAGILL..... ..... *President.*
W. L. KNOX..... *Secretary.*
HON. J. N. EVANS..... *Treasurer.*

DIRECTORS AND EXECUTIVE COMMITTEE:

Hon. W. Webster, Rev. T. P. Bradshaw,
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Rev. T. Magill.

Any further information desired concerning Nevada's resources climate, etc., will be cheerfully furnished on application to the Secretary.

W. L. KNOX, Reno, Nevada.

BIRD'S EYE VIEW OF RENO NEVADA

Reno, Nevada,

AND ITS SURROUNDINGS.

By REV. T. MAGILL.

RENO, NEVADA, is situated in latitude 39 deg., 31 min.; longitude 119 deg., 49 min., and is one of the flourishing towns on that great highway between the East and the West, the Central Pacific Railroad, hence easy of access from all parts of the United States. It is located in the picturesque and charming valley of the Truckee, or, as it is usually called, the meadows of the Truckee, for at this point the valley through which the river flows widens out, and extends in a southerly direction ten or twelve miles, the whole of which is dotted with alfala and grain fields, interspersed with meadows covered with native grasses. Among the rich and varied landscapes to be found along the eastern base of the Sierras, for scenic beauty this portion of the valley of the Truckee is unsurpassed. It is flanked on the north and east and south by gently undulating mountains, and on the west by a spur of the great Sierra Nevada range, which slopes back gradually until it attains a height of more than three thousand feet above the valley. At the southern extremity of this spur, some fifteen miles distant from Reno, Mount Rose rises up, in all its lofty majesty and splendor, to a height of nearly eleven thousand feet above the level of the sea. On the north side of the valley, or rather at its north-western extremity, stands Peavine mountain, forming a part

of another spur of the main range, which runs in a northwesterly direction into California. This mountain, while rising to a height of nearly four thousand feet above the surrounding country, is not precipitous, and its summit may be easily reached, either on foot or on horseback. The altitude of Reno is a little over four thousand five hundred feet above sea level. The portion of the valley on which it is built slopes gently downward from west to east, as does indeed the whole valley, insuring perfect drainage. The Truckee river, on whose banks Reno is built, is a dashing mountain stream, having its source in the everlasting snows of the upper Sierras, whose crystal waters flow past all the year to their destination in Lake Pyramid, about thirty miles distant. But it is not chiefly to the scenery which Reno and its surroundings present that the writer desires to call attention, although this, for grandeur and beauty, may well challenge comparison with the sublime, both of Europe and other portions of America, but rather to our matchless climate, a pure, dry atmosphere, almost continuous days of sunshine through Winter and Summer, together with an equable temperature, that render this portion of Nevada for those afflicted with pulmonary disease, one of the most desirable that can be found, and while it is not his purpose to present in detail other than the climatic advantages to be derived from a residence in Reno, he will briefly notice later its business and social attractions, also its superior educational advantages, which are freely offered to all.

WHO SHOULD COME *to Reno?* is a question often asked and one which the writer will proceed to answer. The most eminent physicians of both Europe and America unite in recommending for phthisis in its earlier, also in its second stage, if it be not accompanied with rapid disintegration, a moderate altitude and

a pure, dry atmosphere. It is well known by medical men that moist air nourishes the growth of tubercle, while pure, dry air tends to destroy it; hence, climatic treatment under the latter condition assists nature in checking the progress of the disease. At Reno will be found all the conditions favorable to recovery—a pure dry atmospere, an equable temperature, Summers that are never excessively warm, Winters that are never excessively cold, a moderate altitude (4,552 feet above sea level), more than 330 days in the year of sunshine, and more than two hundred and twenty in which it shines in a cloudless sky; and, in addition, cool delightful nights in which refreshing sleep can be had, even in the warmest portion of the Summer. It affords the writer great pleasure to be able to say, that the curative properties of our climate have been established for this disease, as is attested by the fact that there are residing among us persons who came here in past years apparently in the last stages of consumption who to-day are well and strong. Western Nevada has, therefore, that to offer the invalid, as an inducement to come within her borders, which is of greater value than were the gold and silver of her mines to the fortune seeker of past years, namely: the precious blessing of health. It is estimated that in the United States alone more than one hundred thousand people are swept annually by consumption into premature graves. The question has been anxiously asked, Can there not be found some means by which the dread ravages of this disease can be stopped? So far, medical science has discovered none by which it can be wholly stayed. Climatic treatment has proven, up to this time, the only sovereign remedy. In view of the conditions existing here favorable to recovery, it is safe to affirm that a large per cent. of those who will fall victims to this disease in the future years, would be reasonably sure to obtain a new lease of life could they but find their way to this favored land, in whose dry aseptic air the tubercle finds a fatal foe, before the disease had progressed too far.

Phthisis is not indigenous to Nevada; the first authenticated case originating in this climate having yet to be discovered. Nor is it alone those who are afflicted, or those threatened with this dread scourge, that will be benefited by residence here, for it has been fully proven that this is indeed Nature's sanitarium for asthma and chronic bronchitis as well. While excessive altitude might prove an injury to those suffering from bronchial affection, experience has demonstrated that Reno's moderate altitude is beneficial in the greatest degree to this class. Among our resident population are to be found numbers who had elsewhere, through a long series of years, been afflicted with the distressing complaints just mentioned, but whose coming to this climate has resulted either in complete or in such partial recovery as has made life once more enjoyable. Some of these, who have traveled in nearly all lands in quest of health do not hesitate to pronounce our climate matchless in respect to aiding in the restoration of this invaluable boon. Asthmatic patients especially have experienced relief in an incredibly short time after their arrival, in some cases only a few weeks elapsing until their nocturnal slumbers have been enjoyed undisturbed, much to their joy. Many of this class, whether wholly or partially recovered from their disease, dare hardly go to reside at a low altitude, or in a damp climate, for fear of its return; while here they feel assured that they are safe and, as a consequence, are willing to remain.

THE FURTHER PLEASING duty is afforded the writer of sending words of cheer to parents who have watched for months, or it may be years, with tenderest solicitude over delicate children, for the dawn of a strength and vigor which, alas, have never come. He would give to such the assurance, that should they bring

these children here they will be benefited in an immeasurable degree, that the rosy hue of health will come to wan and faded cheeks and the light and buoyant step of vigor take the place of that of feebleness. Census returns show that in England and Wales over fifty per cent. of all who have died during the past decade were those under twenty years of age, and also that in the United States during the same period the mortality of the class specified fell but a trifle under. Notice the contrast between the above figures and the death rate of Washoe county, in which Reno is situated. According to the most careful estimate, the annual rate of mortality of those between one and twenty years of age has been only fourteen per cent. of the total deaths occurring, or but one death in every one thousand of our population. This can be partly accounted for, because of the mild type assumed in this climate by all classes of contageous diseases, which elsewhere cause such a fearful harvest of death to be reaped among children. A visit to the cemeteries of Western Nevada will show that the graves of children and young people are few in proportion to the total number of graves; while in nearly every other part of America we find that fully one-half of all who have been buried were those under twenty years of age. The total deaths occurring in the five years ending June, 1892, in the public and private schools of Reno, among the more than eight hundred enrolled pupils, have been but four, which is certainly a remarkable showing, and one such as can hardly be paralleled in any other part of the world. Do not these figures speak volumes? Do they not give the most reasonable assurance that under our sunny skies delicate childhood has the opportunity to develop into robust manhood and womanhood, and that, humanely speaking, the child's chances for reaching mature years are three or four times greater than they are almost anywhere else? May we not also reasonably infer from these facts, that amid such favorable conditions Nevada will yet give to the world the finest specimens of physical, as we

trust it will also of moral and intellectual, manhood that have ever appeared? The general healthfulness of the whole State will be further seen by comparative statistics. The death rate of three of the leading States and a few of the larger cities are given, which fairly represents the average of the whole United States: In 1890 the mortality of New York City was at the rate of 28 per 1,000 of its population; of Chicago, 21; San Francisco, 24; New Haven, Ct., 20; Toledo, O., 20; State of New York, 20; Maseachusetts, 20.01, and the State of Nevada only 9½, being conclusive evidence that the conditions of health and longevity exist here as they exist hardly anywhere else. It should not be affirmed that every class of invalids will be benefited by residing here, but it can be said with confidence that by far the larger part of those who come will find a measure of the priceless blessing of health. The classes of patients who would likely receive no benefit in this climate are those afflicted with heart disease or those suffering with great nervous irritation, yet the trial might prove the change highly beneficial to some, if not all, of those thus afflicted.

FOR A COMPREHENSIVE view of the climate of Reno throughout the year we refer the reader to the accompanying meterological tables which have been carefully compiled. These tables show the average maximum and minimum temperature ranging through a period of years, together with the relative humidity, days of sunshine and annual precipitation of moisture. It will be observed that the mean maximum temperature in the warmest months (July and August) for a period of twelve years was but 71 degrees, while the mean minimum in the coldest months (December, January and February) was but 33 degrees. The mean relative humidity for this whole period of years was 51, showing the remarkable dryness of

our atmosphere. To one peculiar feature of our climate, which does not exist in a humid atmosphere, nor at a low altitude, I would call particular attention: The heat of Summer is neither exhausting nor oppressive, and however warm it may be in the sunshine, in the shade it will always be found cool and pleasant. No doubt to this is due the fact that a case of sunstroke is unkown. Although less than 300 miles in a direct line from the Pacific ocean, our climate, owing to the absence of excessive humidity, is as distinct from that of the country lying west, between the Sierra Nevada mountains and that ocean, as though Reno were two thousand miles further inland. This is due to two causes—elevation and the presence of the great Sierra mountain chain, which stands as a barrier between the Nevada plateau and the ocean fogs and rain clouds. How well these mountains act as condensers of the vapors of the ocean, that are borne inland by the prevailing winds of Winter, will be understood when we learn that the average annual precipitation of moisture in Western California, north of San Francisco, is from twenty to thirty inches (depending upon locality), whereas, at Reno it is but nine inches; and while the snow piles up on the summits of these great mountains to an average annual depth of 30 feet it rarely exceeds a few inches in depth at Reno during any Winter. While Reno is thus deprived of the moisture which the warm winds bear northward and eastward from the South Pacific, it enjoys the modifying influences of these genial air currents which renders its climate balmy and pleasant during a large part of the Winter. Nor is this the only beneficial effect that the plateau of Western Nevada derives from the ocean breezes. Crossing as they do in the Summer months the lofty snow covered summits and pine clad ridges of the Sierras, they sweep gently down upon the valleys, greatly reducing the temperature and bearing in their embrace ozone from the ocean and tonic from the forests of pine, which are so grateful and healing to diseased respiratory organs. Owing to its

peculiar conformation the Nevada plateau is never visited by tornadoes nor destructive wind storms of any kind; nor is that Winter scourge, the blizzard, ever felt or known here. This plateau is not, as some suppose who have never seen it, one vast plain. It is rather a series of mountains and valleys alternating over its wide extent, whose scenic beauty stands unrivalled. The reader must not form the impression that these valleys enjoy a perpetual calm. During the afternoon of some days, especially in the late Autumn and in the Spring, a strong breeze prevails from the west that brings a glow to the cheek and elasticity to the step of the pedestrian. As will be seen from the tables, the months in which the greatest precipitation occurs are January and February. In these months the moisture in the atmosphere usually, but not always, falls in the form of snow, which seldom lies on the ground more than a few days at a time, as the warm Chinook winds, wafted from the Pacific, cause it to melt rapidly. But should these warm winds not prevail, the almost continuous daily sunshine causes it to disappear in from one to three weeks. This period usually affords excellent sleighing, especially after sunset, for however cold the nights become in Winter (and during the coldest the thermometer rarely falls below zero), the days are generally warm and pleasant. Owing to the absence of long continued freezing, even in the coldest months, the disagreeable period, known elsewhere as the Spring thaw, never occurs here. As deep snows and excessive rains are unknown at any season, our streets and roads are, as a consequence, in good condition nearly all the year. It is only during a very brief period that the bicycle cannot be used, and even in Winter there are but few days when carriage and horse cannot be used.

SUFFERERS from any formof rheumatism or skin disease will find at our doors two of the noted hot springs for the cure of these obstinate complaints. Steamboat Springs, twelve miles south, and Laughton's, five miles west, of Reno, contain all the properties in solution that have been found most efficacious in restoring rheumatic patients to their wonted health, and rival in virtue the far famed Hot Springs of Arkansas. With the use of these healing waters, in addition to the natural favorable conditions by which the rheumatic patient finds himself surrounded, such as a pure dry atmosphere, the absence of all malaria, and cool crystal waters fresh from the everlasting snows for his daily beverage, it is no marvel that his recovery should be rapid and pronounced. Steamboat Springs can be reached by carriage drive over an excellent road in less than an hour and a half, or, if one prefers to go by railroad, in less than thirty minutes, while Laughton's Springs can be reached by rail or carriage in a short time. Plans are being matured by which the waters of one or both of these boiling cauldrons will be piped to Reno, thus enabling the invalid to enjoy their use without the necessity of a journey to the springs as at present.

NOT ONLY the invalid in quest of health should come to Reno, but also the well and strong, who, if on pleasure bent, will here find some of the most desirable outdoor attractions. If fishing be the enjoyment sought, the Truckee river, which flows past, abounds in trout; or, if one wishes to add to this delightful pastime boating and bathing, a trip to one of the mountain lakes will enable him to enjoy to the full these coveted luxuries. Those wishing to indulge in the exciting sport of the chase may gratify their desire by ascending the higher ranges of the Sierras where they will find such large game as bear and deer.

and occasionally a mountain lion. In the foothills, as well as in the more elevated region, grouse, quail and the famous jack rabbit are to be found in abundance. At certain seasons of the year deer roam the valleys and canyons and become the easy prey of the hunter.

THE WRITER need only mention a few of the various mountain resorts adjacent to Reno, where the most delightful days may be spent in Summer camp, and where all the pleasures derived from the outdoor sports just mentioned may be enjoyed to the full in these pleasant and, in some respects, most romantic spots on earth. In the warmest portion of the Summer if one desires nights so cool that frosts are rarely absent, and days that are simply perfect, he can drive over the new turnpike from Reno skirting the majestic Mount Rose, whose snowclad summit pierces the sky, and in a little over three hours find himself on the shores of Tahoe, one of the most beautiful lakes on two continents, of whose charms Bishop J. H. Vincent thus writes: "There is not a more beautiful sheet of water on the planet than Lake Tahoe. Whoever trespasses its confines roams in wonderland, and catching the first exhalations of pine and fir and mountain breeze feels that he is quaffing the nectar of the gods. It renews the vigor of youth to climb some enticing height and chase the fleeing sunbeams as the king of day takes on his evening glory, attended in his course by the clouds, winged messengers of the nightfall, from whose glowing depths the floodgates of light burst forth and bathe the mountains with the coquetting hues of sunset. This is a scene of all scenes most grand. From our exalted view the canyons wind away in the closing shadows, and towering peaks upon peaks in ranges pass away, until the eye, now more used to the immense array, sights the outstanding snow

capped sentinel of a million years embanked against the sky. The horizon recedes and extends its bounds as though unable to hold the panorama of creation. Entranced is the beholder. New objects of interest appear, notably a great number of crystal gems, lakes and lakelets literally nestling upon the mountain tops reflecting the intense blue of the sky. This vision correlates the beauty of Switzerland, the picturesque Como and the grandeur of the Alps." And Dr. Selah Brown, the noted traveler and lecturer, wrote thus concerning it: "A charming place is Lake Tahoe. Its beautiful shores and magnificent surroundings are a perfect enchantment. It nestles most delightfully among glorious old mountain peaks that lift their heads from 5,000 to 10,000 feet above the sea. It was hard to realize, as we floated on its bosom, that we were more than a mile above the ocean. Little steamers sail its clear, cool, placid waters, swinging around capes and promontories, and darting in and out of coves and bays of marvelous beauty. If one would find grand scenery, panoramic views, Italian skies, gorgeous sunsets, salubrious air, pure water, aromatic pines, profound solitude, roaring torrents, romantic excursions, rest and recreation, hotels and cottages, tents and camps, fishing and hunting, boating and bathing, he can find all and more in and around Lake Tahoe." It is not Tahoe alone that affords such pleasure and recreation to tourist and invalid, for lying north a few miles apart from each other are lakes Donner, Independence and Webber, which, though much smaller than Tahoe, yet are perfect gems, fringed with pines and set amid towering mountains. Donner is accessible by rail, while the others can be reached by stage or private conveyance. On the shores of each will be found hotels affording all the comforts and conveniences that could be desired. In addition to these already mentioned the writer would not forget to speak of Lake Pyramid, a sheet of clear, blue water of more than forty miles in extent from north to south and from eight to ten miles in width, which lies about thirty-five miles distant

from Reno in a northeasterly direction. The chemical composition of the waters of this lake is of such nature as to afford the most healthful and pleasant Summer bathing to be found in the world. It can be reached only by private conveyance at present. The road leading thither is in good condition nearly all the year. The writer feels assured that an electric motor road will be built to this lake in the not distant future, and that it will become, owing to the mildness of the Winters on its shores, a noted resort for the health seeker during the cold season of the year.

THE RELIGIOUS and social features of Reno do not greatly differ from those of other towns in the West. Cases of crime are of rare occurrence and life and property are as secure as in any of the cities and town of the East. The following churches, representing the leading denominations, are to be found, viz.: Episcopal, Baptist, Methodist, Congregational and Catholic. Each of these has a comfortable house of worship and each maintains regular Sabbath and week day services. The various secret and benevolent orders that flourish in older communities are found here also.

THE PUBLIC SCHOOLS are of an excellent character and fully equipped with apparatus and well trained teachers. The presence of the State University and also that of Whitaker Hall, a seminary for young ladies, a description of whose work is given elsewhere, makes Reno a very desirable location for all who seek thorough educational advantages. In no other land can the student follow in the pursuit of knowledge under conditions more favorable

to success than are to be found in Nevada. That drowsy feeling, so common in a damp or murky atmosphere, which relaxes the mental grasp and takes the keen edge from the perceptive faculties is unknown here. With physical vigor at its best and brain unclouded as a Nevada sky the student, as he roams the wide field of knowledge and gleans valuable sheaves with which to enrich mind and heart, finds his work not a drudgery, but a delight.

METEOROLOGICAL TABLE.

[TABLE NO. 1.]

Compiled by Chas. W. Irish, Civil Engineer, Reno, Nevada, from authentic sources, showing a mean of twelve years, ending 1891:

	January	February	March	April	May	June	July	August	September	October	November	December
Mean Temperature	29°	35°	42°	50°	58°	65°	72°	70°	61°	50°	38°	36°
Mean minimum precipitation in inches	1.22	0.92	0.83	0.31	0 28	0.21	0.09	0.00	0.10	0.12	0.50	0 42
Mean maximum evaporation in inches	0.63	1.25	2 34	3.56	3.87	5 81	9.56	10.19	6 40	3.85	1.94	0.87
Per cent of mean relative humidity	64	61	56	51	40	40	37	39	48	53	58	65
Cloudless days	15	10	15	18	15	21	26	25	21	21	19	5

TOTALS:

Average relative humidity for the year (through 12 years), 51.

Highest relative humidity occurring in months of December and January, reaching 75 and 71.

Lowest relative humidity occurring in months of July and August, reaching only 26 and 32.

Average for the year (through 12 years) of cloudless days, 211.

TEMPERATURE SUMMARY,

Derived from Maximum and Minimum Thermometers, at Agricultural Experiment Station, 1888,

RENO, WASHOE COUNTY, NEVADA.

LATITUDE 39° 31′ 15″ N.; LONGITUDE 119° 49′ W.; ALTITUDE 4552 feet; 120th W. Meridian Time.

Month.	Daily Maximum.						Daily Minimum.						Daily Mean. ½(Mean Max.+Mean Min.)						Daily Range.					Total Monthly Range.
	Highest	Date.	Lowest	Date.	Mean	Monthly range.	Highest	Date.	Lowest.	Date.	Mean	Monthly range.	Highest	Date.	Lowest.	Date	Mean	Monthly range.	Greatest	Date.	Least	Date	Mean	
January.	63 4	23	10 4	14	40 27	53 0	42.2	30	−12 7	14	14 58	54.9	50.55	30	−1 15	14	27 43	51.70	35.0	9	14.5	20	25.69	76 1
February.	75 9	28	49 5	5	61 04	26 4	39.1	10	14 0	29	24 88	25 1	52 80	27	35 00	20	42.96	17.80	50.2	28	13.9	10	36.16	61 9
March ..	87.5	13	39 1	1	61.13	48.4	38 5	31	13 2	1	25.70	25 3	58.00	13	26.15	1	43.42	31.85	59.0	13	15.0	4	35.43	74.3
April ...	88 0	13	49.5	25	73.97	38 5	45 6	22	21.0	5	34 42	24.6	65.05	22	41 50	25	54 16	23 55	50.5	7	16.0	25	39.55	67.0
May. ...	87.3	12	51.0	24	70 21	36.3	48.6	10	26.5	2	40 74	22.1	67.10	13	46 00	24	55 48	21.10	46.9	13	10.0	25	29 47	60.8
June ...	86.0	22	57.0	3	71.57	29.0	57.7	27	36.7	7	46.17	21.0	68 10	26	50.55	7	58 87	17.55	39.1	21	10.0	14	25.40	49.3
July . . .	92.5	16	66 0	11	85.53	26.5	62 3	21	40.6	10	51.61	21 7	74 35	24	56.55	12	68.57	17 80	43 2	10	21 8	21	33.92	51.9
August ..	93.1	23	77.6	2	86.97	15 5	60.7	30	41 2	1	50 88	19.5	74.75	7	59.60	1	68.92	15.15	45.9	25	18.3	30	36.09	51.9
September	93.0	3	67 1	23	82.82	25.9	59.6	12	42.4	29	50.14	17.2	73.25	3	58.30	18	66.48	14.95	41 6	4	15 1	23	32.68	50.6
October.	82 9	11	58 8	31	68.86	24.1	47 6	6	27.3	22	37 41	20.3	61 00	11	43.05	21	53.14	17.95	43.8	11	14 8	24	31 45	55.6
November	69.1	2	43 1	27	51.36	26 0	39.5	19	17.0	29	29 00	22.5	48.90	2	30 35	29	40.18	18.55	40.4	2	8 4	16	22.36	52.1
December	59.7	8	29 3	31	46.75	30.4	41.3	9	22.4	19	28.65	18 9	48 70	9	27.00	31	37.70	21.70	36.1	8	3 6	31	18.10	37.3
Mean..	81.53		49.87		66.71	31.66	48.56		24 13		36.18	24.43	61.88		39 41		51.44	22 47	44.31		13.45		30 53	57.40

MONTHLY SUMMARY,

[TABLE NO. 3.]

Nevada Agricultural Experiment Station, Reno, Washoe County, Nevada, 1889.

LATITUDE 39° 31′ 15″ N.; LONGITUDE 119° 49′ W.; ALTITUDE 4552 feet.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Highest, degrees	52.9	63.9	65.1	79.8	89.7	91.3	100.0	94.5	91.1	85.0	65.1	51.8
Date	9th	27th	22d	26th	26th	12th	28th	14th	6 & 7th	6th	9th	2d
Lowest, degrees	−0.5	2.6	18.9	25.4	29.4	37.5	44.8	40.8	34.7	24.0	16.1	−7.3
Date	19th	17th	19th	18th	8th	28th	24th	27th	24th	30th	14th	29th
Monthly range, degrees	53.4	61.3	46.2	54.4	60.3	53.8	55.2	53.7	56.4	61.0	49.0	59.1
Mean maximum, degrees	41.75	51.27	57.59	65.4	68.8	84.57	85.40	88.40	80.72	63.6	53.57	38.54
Mean minimum, degrees	16.78	21.34	31.13	37.8	41.8	50.70	51.90	51.30	40.72	36.6	26.90	23.75
Greatest daily range, degrees	34.5	39.8	39.0	40.6	39.0	41.3	44.3	46.0	50.7	47.0	41.3	28.0
Date	20th	27th	22d	19th	25th	11th	28th	15th	17th	2d	16th	30th
Least daily range, degrees	7.7	11.4	11.9	8.5	10.3	19.6	27.5	24.9	15.7	12.0	7.2	6.0
Date	14th	14th	13th	5th	6th	27th	14th	31st	28th	8th	30th	14 & 26
Mean relative humidity, per cent	59.19	48.40	48.84	42.96	43.25	32.78	30.72	28.00	32.03	54.24	68.48	81.09
Total precipitation of rain and melted snow, inches	0.37	0.29	0.65	0.03	1.825	Trace.	0.00	0.00	0.00	0.012	1.735	2.305
Total snow fall, inches	3.62	3.1	0.5	Trace.	2.25	0.00	0.00	0.00	0.00	0.00	0.5	24.52
Rainy days	3	3	5	0	1	0	0	0	0	2	2	3
Cloudy days	0	3	5	0	0	0	0	0	2	5	7	12
Fair days	12	8	11	17	12	22	1	2	5	13	6	14
Clear days	19	17	15	11	18	8	30	29	23	11	15	12
Prevailing	Clear	Clear.	Clear.	Fair.	Clear.	Clear.	Clear.	Clear	Clear.	Fair.	Clear.	Fair.

TOTALS FOR 1889 —Mean relative humidity, 46.68; total precipitation (rain and melted snow), 7.21; Cloudy days, 34; Clear and fair days, 331; Days on which rain or snow fell, 19.

COMPARATIVE TABLE

[TABLE NO. 4.]

Presenting a comparison of the temperature, humidity, rainfall and hours of sunshine, prevailing at one each of the leading health resorts of Europe and America and that of Reno.

	Average maximum temperature	Average minimum temperature	Av'rge temperature	Average per cent. of humidity	Number of hours of sunshine	Total rainfall in inches
November—						
Davos Platz, Switzerland	54	14	34	78	96¾	3.03
Colorado Springs	49	24	33	67	169¼	0.22
Reno, Nevada	51	29	39	68	168	1.95
December—						
Davos Platz	43	3	28	78	.....	0.08
Colorado Springs	49	21	30	57	.....	0.07
Reno	47	28	37	81	180	0.37
January—						
Davos Platz	39	1	22	81	120	0.79
Colorado Springs	39	12	21	59	165¾	0.16
Reno	40	14	28	59	167	0.70
February—						
Davos Platz	44	6	21	82	54½	4.25
Colorado Springs	42	14	26	61	161¼	0.68
Reno	61	25	43	48	215	0.29
March—						
Davos Platz	46	2	26	73	127¼	1.01
Colorado Springs	54	28	39	57	214	0.12
Reno	59	26	43	49	220	0.63

[TABLE NO. 5.]

COMPARATIVE TABLE

FOR MEAN OF FIVE YEARS.

	NO. OF DAYS.			Relative humidity.	Yearly precitation of rain and melted snow	Mean temperature.
	Clear	Fair	Cloudy			
Reno, Nevada	207	120	38	46.68	8.80	50.82
Denver, Colorado	177	142	46	45.8	14.77	49.1
Santa Fe, N. M.	174	148	43	41.4	14.17	48.5
Los Angeles, Cal.	164	148	53	65.8	18.97	59.8
Salt Lake, Utah	141	131	93	.....	17.52	51.8
Jacksonville, Florida	126	152	87	69.0	55.94	69.2
Newport, R. I.	108	140	117	74.3	50.20	50.3
Boston	105	145	115	68.5	49.47	48.5
Chicago	104	154	107	69.2	35.47	49.3
New York	101	155	109	70.2	42.70	51.3
St. Paul	103	158	104	67.3	29.59	43.9

Camping in the Sierras.

By HON. W. W. WEBSTER.

THE SIERRA NEVADA and Washoe mountain ranges run parallel and extend northerly and southerly for many miles. Between these ranges are many valleys whose western boundary is the foothills of the Sierra Nevadas. From the foothills and the whole of the eastern slope of the latter mountains perennial streams of pure spring and snow water flow down through the valleys below. The Truckee river is the largest of these mountain streams. There flows over its channel for a distance of seventy miles a large volume of pure water that is discharged into Pyramid and Echo lakes, which lie at the eastern base of the Washoe range. This river, by the action of its waters and the aid of other forces, has, in the history of the great past, torn and worn a channel through the Washoe range over which the Central Pacific Railroad has an excellent pass westerly into the Truckee valley from the plateau that forms a part of the North American basin. The Truckee river has its main source in Lake Tahoe, in the heart of the Sierras, and there are other and lesser bodies (Donner, Webber and Independence) in these mountains that largely contribute their waters to swell its volume. From these smaller lakes and from the many mountain springs, channels, deep cut by the water and

other causes, contribute largely to the picturesque and grand scenery of the mountains. Over these channels, veiled by the deep shadows of the pines and firs, the waters leap and bound to the main Truckee. In these deep cut mountain furrows are the cool and refreshing spots (making a veritable mountain paradise in the Summer months) where the gentle zephyr, laden with the odor of pine forests mingled with the perfume of mountain flowers, plays upon the cheek, and where the songs of the birds and the hum of the wild bees give a soft and mellow cadence to the music of rustling leaves and rushing waters. The water taken by the river from the upper lakes descends, in its course of seventy miles, twenty-five hundred feet, when it is received by the lower lakes, upon whose beds it rests as pure as the snow from which it came.

HERE ARE, in the mountain tributaries of the rivers of California and Nevada, excellent varieties of native trout and other fishes. To the native trout varieties, through the enterprise of these States, there has been added many others from the streams of New England and from the streams of the western mountains. In the Truckee and its tributaries there have been placed large numbers of these transplanted varieties, all of which have largely multiplied and now exist along with the native trout in abundance. This river, the lakes that form its sources and Pyramid and Echo lakes that receive its waters, furnish trout fishing that cannot be surpassed on the continent. The writer has taken from Pyramid lake in less than six hours, with hook and line, trout whose united weight was over three hundred and fifty pounds, many of which weighed from four to ten pounds each. The largest specimens that have been caught turned the scales at sixteen pounds. Such examples, however, are

rare. The sizes are graded from the large trout of this lake to the small trout of the Sierra Nevada mountain brooks, weighing a few ounces. Echo lake is not as large as lake Pyramid, and contains but one variety, called silver trout, which take their name from the bright and silvery sheen of their scales. They are a game and a beautiful fish. The different varieties enter the Truckee from these lakes in their season. The first to enter are from Pyramid lake and come into the river about the last of October, from which time the other varieties follow until May. The last to enter are the silver trout, from Echo lake, in June. Nearly all of the lake trout have then returned to the lakes, those remaining being the river and mountain trout proper. These strictly river and mountain varieties, after the return of the lake trout, furnish the sportsman ample returns for his patience and skill. These varieties are graded in size by altitude.

ALONG THE TRUCKEE and its tributaries and upon the shores of the lakes are some of the most delightful spots, beautiful and grand beyond description. The higher peaks of the Sierras, clad in the cheerful green of the mountain pines, and the broad faces and serrated edges of the rocks, gleaming in the sunlight in their pine-girt frames, present pictures whose grandeur must be seen to be appreciated. The soft blue of the sky in Summer, when viewed from the depths of some intervening canyon enclosed by the deep walls of the mountains, gives a halo to the scene that is inspiring and soothing, and when the day is closing, the sun, as if pleased at the beauties imparted to mountain and lake, sends golden beams over all as a parting adieu that blend with the shadings of the mountains and lakes and give a delicate variety and tint that could not be described by brush or pen. These beauties combined form a sunset, in its variable-

ness and richness, so pleasing to the eye and mind that the observer is lost by the blending of his individuality into oneness with his surroundings. He can only wonder and admire. As darkness approaches and deepens into night in these mountains the deep blue of the southern heavens is intensified. The clear, dry atmosphere gives distinctness and the stars and planets, in contrast with the obscurity of the background, have brightness and brilliancy that give to each a wonderful distinctness of outline. The shadings, colorings and beauties of Nature in the Sierras may not be imitated, the work is her own and will remain to the end her possession. A very good way for the tourist and others who may be seeking health or recreation or both to see and enjoy this enchanting scenery and the many natural effects with which it is allied, is by camping in the mountains in the Summer and Autumn months. The atmosphere is so dry during these months that moisture is not at any time perceptible. There are no dews. The sportsman may in the evening lay his clothing in the open air, damp from prespiration or wet from an involuntary bath in brook or lake, and when the morning is come he will find them dry. In this out-of-door life a tent will afford all the shelter repuired. There are no forces of nature in all these mountains nor in the valleys in the Summer time that the walls of a canvas tent are not more than sufficient to repel. The most timid female or delicate invalid is as secure from harm or annoyance in a canvas tent as she could be in a parlor in any of our cities. The invalid may, upon his couch in these mountain solitudes, or when quietly passing upon the bank of a mountain brook, seek and find health. The dry, Summer air of the Sierras, freighted with healing balms from their pine forests, is one of Nature's great restoratives. In pulmonary ailments it is healing and life-giving. In the last weeks of May and in June, when the Winter snows are receding to the summits and the flowers are making their first appearance, there is in the mountain air a mirth-inspiring

property that stimulates and sends the blood coursing over the body with a force plainly perceptible in its action by the glow upon the cheeks and the change of manner in those under its influence. This effect is not altogether the result of exercise, as those who ride feel it the same as do those who walk, and the benefits derived by those who walk are also received by those who ride. These feelings and benefits come from breathing the mountain air at the season mentioned. As the Spring merges into Summer the air seems to lose this subtile essence, but continues to invigorate those who seek its healing and life giving properties.

WHEN SUMMER is closed and Autumn is come, the more athletic find a new source of pleasure and exercise by taking the gun in exchange for the rod. The young mountain quail is fledged, and the coveys are forming into bands near the springs and along the water courses before leaving the higher mountains for the foothills in California, where they spend the Winter. These birds furnish fine shooting and are of the better varieties of game. The mountain grouse, at this season, are also plentiful, and not only furnish fine sport, but are delicious when properly cooked. Deer are seen more often than they are caught. Two or more enterprising hunters may any morning arise at 3 o'clock and make their appearance about daybreak near the summit of one of the higher mountains and with a good Winchester bring down a deer with fine antlers that may require more strategem to get him into camp than it did to kill him. In this service a donkey will prove a very good substitute for the hunter. There are a few small bears in the mountains, at least I have been informed by those who claim to know, that bears have their habitat somewhere in the Sierras, but I could not

write a word from personal observance that would tend to confirm a bear story and establish as a fact that there are bears in numbers sufficient on which to build one. Having resided in the mountains almost thirty years I should know something about bruin, but I do not know anything worth relating. The only uneasiness of mind that I have had in all this time because of bears occurred more than two decades since, by having something like a depression in the sand pointed out by my companion, who informed me that it was a "bear track." At a time so remote from my bear's track experience I feel at liberty to say that the most timid female or invalid is proof against any attack from bears in these mountains. Such animals have no use for tourists or camping parties. They flee from the approach of man as fast as their instinct and fears can impel them.

Effect of Climate ON DISEASE.

By W. A. PHILLIPS, M. D.

IT IS THE UNANIMOUS opinion of physicians who have practiced in Reno for a number of years, that there is nowhere to be found a climate more conducive to health and longevity than the climate of Western Nevada. A case of consumption has never been known to develop here, unless the person was engaged in some occupation that furnished both the cause and aggravation. Many persons whose fathers and fathers' fathers have fallen victims to this dreod disease have come here and have lived to ripe old age, and died at last of some other malady. These pages could be filled with living examples of those who have come to Reno with consumption and have been restored to health and happiness by this life-giving climate. In this land of almost perpetual sunshine and exceptionally pure air the dreaded *Bacillus Tuberculoses* finds absolutely no encouragement in his deadly work.

ASTHMA.—It is not claimed that Asthma is always cured by this climate but we come in daily contact with persons who cannot live elsewhere on account of this disease, and yet in this pure, bracing air they are enabled to pass the time in ease and comfort, for if not cured they are greatly relieved.

CHILDREN'S DISEASES. — Scarlet Fever is occasionally brought here from some other locality, but it is not looked upon as an alarming disease and rarely ever proves fatal. A

death from it has not been known in our town for years. In the majority of cases it is no more to be dreaded than measles of a mild type. The remarkable purity of this mountain air must alone account for this.

Diphtheria.—At long intervals Diphtheria appears in the town or community, but does not become epidemic, seldom more than two or three families being afflicted.

Bowel Troubles, which so devastate the homes of the East and South by removing the children of tender age, are almost unknown in this highly favored region. The much-dreaded Cholera Infantum is very rare in this climate, perhaps not more than a single case being met in a physician's practice of a whole year.

Surgery.—Operations in Surgery are attended with most excellent results. Some years ago a man was run over by the cars near Reno and his thigh was terribly crushed and frightfully lacerated. He was removed to the county hospital, when the attending physicians (several in number) decided that there was no probability of his surviving the shock of amputation. As the result he was left alone and the contused flesh separated from the sound, the physician simply trimming off the bone. The man, aided by this marvelously pure air, made a rapid and permanent recovery.

Dyspepsia.—While not claiming that this climate is a specific for Stomach troubles, it is nevertheless true that almost all persons suffering from stomach disorders are benefited by coming here from lower altitudes.

Malaria.—Malarial disorders are practically unknown. Those who suffer from the effects of this subtile poison elsewhere, after coming to this climate soon experience relief and find complete exemption as long as they remain.

In general it may be said of this climate that it offers advantages unsurpassed to those who seek restoration to health and especially to those seeking immunity from consumption and kindred disorders.

The State University.

By S. A. JONES, Ph. D.

SITUATED TO THE NORTH of Reno, about one-half mile from the depot, in the center of a beautiful campus of twenty acres, is the State University. It consists of four substantial brick buildings, and the mechanical workshop, which is a wooden structure. On one side of the buildings are two lawn tennis courts, a croquet ground and military parade ground, which is also used for football and baseball purposes. On the other side the campus is laid out in lawns, through which run well-graded drives and walks, all producing an agreeable effect. The University has had a steady and vigorous growth ever since it was located at Reno. The number of students in attendance has increased yearly and will probably continue to do so for some time to come. Last year the enrollment reached 163, besides the Training School, which had 46 pupils. It is nearly as large now, and will probably equal it next term. The Professors are nearly all specialists in their departments, and very enthusiastic in their work. Five special lines of work are offered, viz: The Commercial Department, where the principle subjects are Business Arithmetic, Commercial Law, English Language, Type-writing and Short-hand; the Normal Department, where, in addition to the common English branches, English Literature, Algebra, Geometry, Physics, Chemistry, Geology, Botany and Anatomy and Physiology

are thoroughly studied, and the theory and practice of teaching are carefully presented. In the University proper there are the School of Liberal Arts, the School of Mines, and the School of Agriculture, in which advanced work in the languages, mathematics and the sciences claim special attention. The four Laboratories in Chemistry, Physics, Anatomy and Physiology, and Assaying, are veritable workshops, each in charge of a thoroughly competent instructor, in which the students do practical work with their own hands. The students are taking great interest in practical mechanics in the workshop. The demand is greater than the accommodations. A matter in which every one connected with the institution is greatly interested is the Library. Two thousand dollars have recently been expended in books for it. These, with the book before on hand, make a very creditable working library, inasmuch as they range through the departments of biography, travel, history, poetry, English literature and the different branches of science. The Military Department is in the charge of a commissioned officer, sent by the President of the United States to instruct the students in military science and tactics. All male students are required to become cadets and wear the prescribed uniform at all times when in attendance. This is a very neat and appropriate suit, which costs only $11.45. The arms and accoutrements are furnished by the United States. The following may not be out of place in this connection: A Professor in an Eastern college, who visited the University recently, remarked: "I am surprised to find in so young an institution such good buildings, and so elaborate equipments, so good a Faculty, and such good looking students. There is more of the University and it is on a better basis than I supposed.

Whitaker Hall.

By REV. ERASMUS VAN DEERLIN.

THIS SCHOOL FOR GIRLS was founded in 1875 by the Right Rev. O. W. Whitaker, D. D., Bishop of Nevada from 1869 to 1886. It was established to give the girls of Nevada the opportunity of obtaining within their own State a thorough education, in a well-guarded *Christian Home*, where they would be surrounded by good influences, and be cared for as daughters in the family as to their health, manners and character. The aim of the school is to develop the pupils into refined, cultured, Christian women, well fitted for all the duties of practical and social life, and trained up to be all that daughters, wives and mothers ought to be. The object of the discipline of the school is to instill just principles of action, to cultivate a love for the right, and to teach girls that "greatest of all human achievements" — self-government. The fundamental and solid branches are pursued thoroughly and systematically. Music, drawing, painting, French and German are taught by experienced and accomplished teachers. The school is provided with all necessary means for its work. It has a good gymnasium, library, chemical apparatus, cabinet of minerals, etc. The grounds are, without doubt, the most beautiful in the State. It is but simple justice to the school to say that the advantages which it offers for obtaining a thorough education in every department of study, and for the formation of true

womanly character, are not surpassed by any school west of the Rocky mountains. Parents will find here for their daughters advantages in home and school that are rarely combined, and where attention is given, not only to the education and development of the intellect, but also of the moral and spiritual parts of our nature. Pupils taking the full work of the academic course will be prepared for admission to any college. Such pupils will be admitted to the Stanford University upon certificate from Whitaker school, and no further examination will be required.

Resources of Nevada.

By J. N. EVANS.

IN 1864 THE TERRITORY of Nevada was admitted into the Union as a State. Political conditions, because of the war, were such at the time of its admission that it was thought necessary to place upon its people the duties and responsibilities of citizens of a State, hence Nevada's title, "Battle Born." During the years that have intervened since its admission up to the present the people, in the face of advere conditions, have bravely maintained the relation of Statehood then placed upon them. These conditions, which have so long held in abeyance the development of our resources, promise soon to pass away. A combination of circumrtances have arisen that proclaim the dawn of a new era of marked prosperity for Nevada; notably, with others,

the commencement of another line of railroad between San Francisco and Ogden, which runs across the State; also the incoming of capital seeking investment in various business enterprises. The confidence of our people in the bright prospects near at hand is shown in the increased business activity which everywhere prevails. A commonwealth possessed of the great natural resources which are to be found in Nevada cannot, in this age of development, remain dormant for any extended period. Many lines of profitable investment are open to capitalists, the chief of which may be enumerated as lands, mines, mining, agriculture, water storage and stock-raising. Business in every department necessary to the existence of the people has proved remunerative to those therein engaged. While this is true it should also be stated that owing to causes which have existed in the past, tending constantly in the direction of depression, the business of the State has not been as extensive as its resources warranted. Its mines have not been developed, nor has its agricultural area expanded, as they necessarily would under more favorable conditions. The lack of cheap transportation has hindered the working of many valuable silver bearing lodes and the development of others that are prospectively rich. The mineral resources of the State, exclusive of silver, are so vast that even an approximation of their extent cannot be made, but enough is known of the number and richness of the metal bearing lodes to insure profitable investment for capital.

THE AGRICULTURAL resources of Nevada are far greater than is generally supposed. Nearly all the fruits which grow in the temperate zone, flourish in our Valleys and are superior in quality and flavor to like fruits grown in many parts of the Pacific Coast. All of the cereals give excellent returns and are of a superior quality.

The following estimate in bushels of the grains mentioned is, perhaps, under the average yield per acre: Wheat, with fair culture, 30 bushels; oats 40, and rye 35 bushels. Vegetables are of a superior character and fully equal to any raised in America. Both soil and climate are well suited to the growth and maturity of the ordinary varieties, while the yield is all that could be desired. The sugar beet raised in Nevada shows a higher percentage of sugar producing qualities than any grown in other parts of the coast. All of the domestic grasses do well and contain a relatively large percentage of nutritive properties. Alfalfa, which thrives wonderfully is extensively raised for feeding and fattening stock. An ox weighing eleven hundred pounds, when fed with alfalfa, will gain at the rate of one and one-half pounds per day. Irrigation is necessary in all parts of the State for the production of crops. The water flowing from the eastern slope of the Sierra Nevadas is more than sufficient to irrigate every foot of the vast tracts of land which are comprised in the valleys of Western Nevada, skirting the base of these mountains for a distance north and south of more than three hundred miles. Some estimate may be formed of the extent of territory still arid comprised within this belt, and which can be easily reclaimed by the storage and utilization of waters now running to waste, when we learn that in the basins of the Truckee and Carson rivers alone are to be found two hundred and twenty-five thousand acres. These waste lands, through irrigation, can be made as highly productive, at a nominal cost, as any in the United States. The attention of capitalists seeking investments is especially invited to this particular department of Nevadas resources, which will be found to warrant both safety and an ample profit to the investor.

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